

# MORBIDITY AND MORTALITY WEEKLY REPORT

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1998–October 1999

## Suicide Prevention Among Active Duty Air Force Personnel — United States, 1990–1999

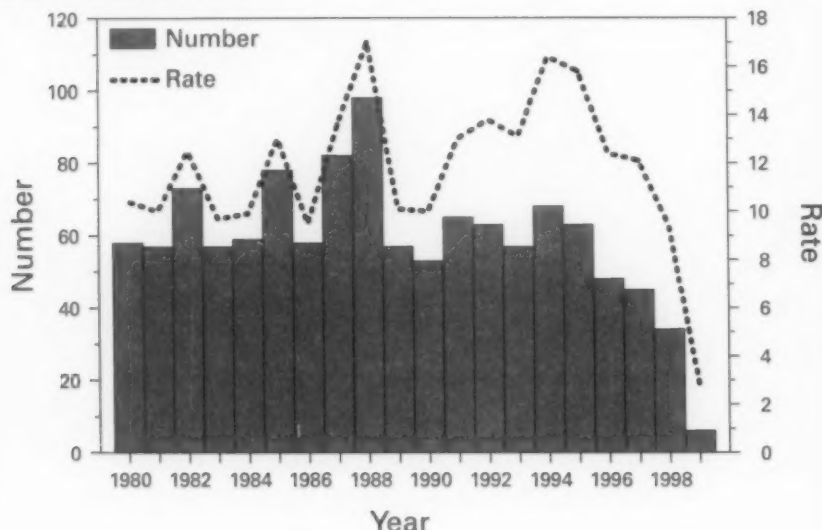
During 1990–1994, suicide accounted for 23% of all deaths among active duty U.S. Air Force (USAF) personnel and was the second leading cause of death (after unintentional injuries) (Table 1). During those years, the annual suicide rate among active duty USAF personnel increased significantly ( $p < 0.01$ ) from 10.0 to 16.4 suicides per 100,000 members (Figure 1). In 1995, senior USAF leaders initiated prevention programs in several commands because of the increasing suicide rate. In May 1996, an in-depth study by a team of medical and nonmedical civilian and military experts was initiated to produce a comprehensive, communitywide prevention strategy that viewed suicide not only as a medical but a USAF problem, thus addressing overall social, behavior, and health issues (1). The plan was implemented across the entire USAF during 1996–1997. This report describes protective and prevention strategies and summarizes the study findings, which indicate that a substantial decline in the suicide rate was associated with the communitywide program.

The team's suicide prevention strategy encompassed nearly all the USAF community (e.g., investigative agencies, military justice, and prevention and treatment services) and focused on reducing suicide by emphasizing early interventions, and strengthening protective factors (e.g., a sense of belonging and caring, effective coping skills, and policies that promote help-seeking behavior). These goals correspond to recommendations made by the United Nations (UN) and World Health Organization (WHO) to governments and local communities in developing suicide prevention strategies (2). The initiatives were divided into three categories corresponding to

**TABLE 1. Causes of death among active duty U.S. Air Force personnel — United States, 1990–1994**

Cause	No.	% of all deaths
Unintentional injury	636	48%
Suicide	300	23%
Disease	280	21%
Homicide	61	5%
Other	37	3%
<b>Total</b>	<b>1314</b>	<b>100%</b>

## Suicide — Continued

**FIGURE 1. Annual number and rate\* of suicides among U.S. Air Force personnel — United States, 1980–1999†**

\*Per 100,000 U.S. Air Force personnel.

†1999 rate is an estimated projection as of August 31, 1999. Significant negative linear trend in suicide rate from 1994 to 1998 ( $p < 0.002$ ).

areas identified by other prevention programs: adapting CDC recommendations for youth suicide prevention (3) to the USAF adult population, restructuring prevention services offered on USAF installations (4), and establishing a central surveillance database for fatal and nonfatal self-injuries (5).

#### Adapting CDC Recommendations

The team established USAF requirements for annual suicide prevention and awareness training, which was provided to approximately 80% of USAF members. Supervisors and leaders within each military unit, medical providers, attorneys, and chaplains received concentrated training as "gatekeepers" whose role was to channel persons at risk to appropriate agencies. In 1996, the USAF began to administer a comprehensive health questionnaire, including items about mental health status, when USAF members enrolled in the military health-care plan; an abbreviated version was subsequently administered annually. Questionnaire data were used to determine when referral to a health-care provider was indicated.

The USAF Chiefs of Staff sent servicewide electronic messages, recognizing the courage and sound judgment of persons who confronted difficult issues and sought professional help (e.g., marital, family, legal, financial, mental health, and spiritual counseling). These messages also stated that military leaders must ensure that mem-

*Suicide — Continued*

bers facing substantial stress receive the care and support of their military unit (i.e., local community), even when the stress stemmed from violating community norms (i.e., Uniform Code of Military Justice [UCMJ]). The team also established policies that required any USAF agency investigating a member to coordinate with unit leaders to ensure that the leaders carried out their gatekeeping role.

**Restructuring of Prevention Services**

Prevention services on all USAF installations were restructured by establishing a limited psychotherapist-patient privilege to protect members charged under the UCMJ. Mental health providers were mandated to initiate community-based primary prevention, and the USAF integrated the services of the six agencies involved in prevention services (mental health, family support centers, child and youth development, health and wellness centers, chaplains, and family advocacy). The six agencies in each geographic community were required to conduct an assessment of the risk for suicide and to develop a coordinated prevention plan with measurable goals.

**Surveillance**

Gathering suicide data from the USAF population is facilitated by standardized data systems that track each member. Each active duty member's death is investigated by the USAF Office of Special Investigations, a forensic agency autonomous from the local command authority. Since 1997, USAF suicide data (completions, attempts, and gestures) have been collected in a database that includes demographics, details of the events, use of prevention services before the event, and associated psychological, social, behavior, and economic factors.

From 1994 to 1998, the suicide rate among USAF members decreased significantly, from 16.4 suicides per 100,000 members to 9.4 ( $p < 0.002$ ) (Figure 1). On the basis of the first eight months of 1999, the 1999 estimated rate is 2.2 suicides per 100,000 members—approximately 80% lower than the lowest annual rate since 1980 (Figure 1).\*

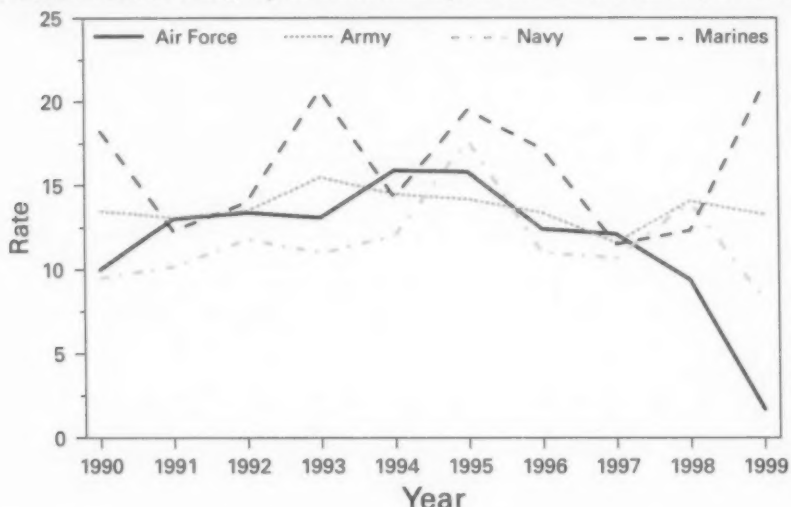
*Reported by: DA Litts, K Moe, CH Roadman, R Janke, J Miller, Suicide Integrated Product Team, United States Air Force, Dept of Defense. Div of Violence Prevention, National Center for Injury Prevention and Control, CDC.*

**Editorial Note:** During 1994–1995, suicide prevention became a USAF priority. Initially, the focus of prevention activities occurred within several major commands; however, this approach was succeeded in 1996 by a servicewide program, whose goals correspond to recommendations made by the UN and WHO to governments and local communities in developing suicide prevention strategies (2). These efforts were temporally associated with a substantial decrease in the suicide rates among active USAF personnel. Suicide rates in the other military services do not demonstrate the sustained decline over the same period (U.S. Army, U.S. Navy, and U.S. Marines, unpublished data, 1999) (Figure 2).

The USAF's approach to suicide prevention emphasized the role of the entire community, not only health care, in reducing and preventing factors thought to contribute to suicide. It also included components that promoted protective factors such as social networks. Readiness to address the suicide problem was established quickly because

\*The 1999 rate was estimated by dividing the number of deaths by the number of months of data to get a monthly average and then multiplied by 12 to get an approximate numerator for the annual rate.

## Suicide — Continued

**FIGURE 2. Suicide rates,\* by branch of military service — United States, 1990–1999†**

\* Per 100,000 members of each service.

† 1999 data are annualized rates based on suicides through June 1999.

the leaders involved were easily identified and had substantial influence over the community. A program of education and awareness training for all personnel, combined with integrated prevention services in every community, set out to modify the culture of the USAF community. Initiatives are ongoing, established by official policy requiring annual reporting of performance objectives.

Evaluation of the program's effectiveness and its generalizability to other groups is subject to at least two limitations. First, although the decline in the suicide rate among USAF personnel corresponds temporally with the interventions, a causal relation between the decline and the program has not been established conclusively nor have components that might have been responsible for the decline been identified. Second, differences exist in the characteristics of active USAF personnel and the U.S. civilian population. All members of the USAF community have completed secondary school, are employed and housed, and have comprehensive health-care benefits, including unlimited mental health care. Since 1974, members have been screened for mental illness before entry. Use of illicit drugs, a risk factor for suicide, is approximately 90% less frequent than in the civilian population after adjusting for age and sex (6). All members have a commander or a first sergeant whose job is to be interested in each member's health and well being.

This study highlights that suicide is a preventable health problem and demonstrates the importance of using multiple agencies to address the issue. It also indicates that a communitywide, multiple-strategy program can be planned and implemented and can contribute to reducing self-directed violence. The USAF has

*Suicide — Continued*

assigned a team to monitor the ongoing intervention and surveillance activities and to recommend modifications as needed. The USAF suicide prevention strategy should be tested in other occupation-related communities, such as law enforcement or investigative agencies, to determine whether the programs can be effective in other populations.

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### **Progress Toward Poliomyelitis Eradication — Eastern Mediterranean Region, 1998–October 1999**

In 1988, the Regional Committee for the Eastern Mediterranean Region\* (EMR) of the World Health Organization (WHO) adopted a resolution to eliminate poliomyelitis from the region by 2000. This report summarizes progress toward this goal in EMR countries through October 1999; all EMR countries, including war-torn and other underdeveloped areas of the region, are conducting essential polio eradication strategies, and eradication activities to rapidly stop poliovirus transmission are under way in countries where polio is endemic.

#### **Routine Vaccination Coverage**

In 1998, regional routine coverage with at least three doses of oral poliovirus vaccine (OPV3) by age 1 year was 82% (range: 24%–100%). All member countries reported routine coverage data, and OPV3 coverage was  $\geq 90\%$  in 16 countries. However, reported OPV3 coverage was 86% in Iraq, 79% in Pakistan, 72% in Sudan, 68% in Yemen, 62% in Djibouti, 35% in Afghanistan, and 24% in Somalia. Countries reporting  $<90\%$  coverage represent more than half of the regional population. Compared with the reported coverage rates, most of which are determined by using target population estimates, population-based surveys in Afghanistan, Iraq, and Pakistan have found lower coverage rates.

\*Member countries are Djibouti, Egypt, Libya, Morocco, Somalia, Sudan, and Tunisia in northern and eastern Africa; Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates, and Yemen in the Arab Gulf states; Iraq, Jordan, Lebanon, Syria, and the Palestinian National Authority in the Middle East; Afghanistan, Iran, and Pakistan in Asia; and Cyprus.

*Poliomyelitis Eradication — Continued***Supplementary Vaccination Activities**

During 1998 and 1999, National Immunization Days (NIDs)<sup>†</sup> were conducted in 19 countries. In 1998, Somalia and Sudan conducted the first countrywide campaigns that covered the war-affected southern parts of each country (1). Kuwait did not conduct NIDs in 1998 but will conduct one round in November 1999. Iran and Tunisia conducted targeted Subnational Immunization Days (SNIDs)<sup>‡</sup> in provinces at risk for poliovirus importation and/or with suboptimal vaccination coverage. NIDs have not been necessary in Cyprus because routine coverage is high. Poliovirus circulation has persisted or is suspected in seven EMR countries (Afghanistan, Egypt, Iraq, Pakistan, Somalia, Sudan, and Yemen) because of low routine OPV3 coverage and/or pockets of unvaccinated children not reached during NIDs. Accelerated vaccination activities, which include improving the quality of all campaigns, adding rounds of NIDs or SNIDs, and intensifying house-to-house vaccination in high-risk areas, have been initiated in these countries (Figure 1). For example, in early 1999, >11 million children were vaccinated during two rounds of a house-to-house vaccination campaign in three provinces of Pakistan, and Afghanistan and Iraq are conducting two pairs of NIDs in 1999.

Within EMR, campaigns are coordinated among groups of contiguous countries, including Afghanistan, Iran, and Pakistan; Iran, Iraq, and Syria (and Turkey) (2); between member states of the Gulf Cooperation Council<sup>§</sup>; and between Maghreb Union countries, including Libya, Morocco, and Tunisia. NIDs in several countries have been coordinated with countries in the European region ("Operation MECACAR") and the African region in the Horn of Africa. NIDs in Pakistan have been synchronized with campaigns in southern Asia (3,4).

**Surveillance**

By mid-1998, all member countries (except Djibouti) had established acute flaccid paralysis (AFP) surveillance. Fifteen countries (Bahrain, Cyprus, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Oman, Palestine, Qatar, Saudi Arabia, Syria, and Tunisia) had achieved or exceeded the WHO-established minimum AFP reporting rate indicative of a sensitive surveillance system (one or more nonpolio AFP case per 100,000 children aged <15 years) during 1998 (Table 1). Among the eight remaining countries, the annualized nonpolio AFP reporting rates during 1999 have exceeded one case per 100,000 in Afghanistan, Pakistan, United Arab Emirates, and Yemen. The regional average reporting rates for nonpolio AFP in 1998 and 1999 were 0.88 and 1.21, respectively. During 1998 and 1999, two adequate\*\* stool samples were collected from 64% and 68%, respectively, of the persons with reported AFP in EMR. During 1998 and 1999, seven countries (Cyprus, Kuwait, Oman, Palestine, Saudi Arabia,

<sup>†</sup>Mass campaigns over a short period (days to weeks) in which two doses of OPV are administered to all children in the target age group (usually aged <5 years) regardless of previous vaccination history, with an interval of 4–6 weeks between doses.

<sup>‡</sup>Focal mass campaigns in high-risk areas over a short period (days to weeks) in which two doses of OPV are administered to all children in the target age group, regardless of previous vaccination history, with an interval of 4–6 weeks between doses.

<sup>§</sup>Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates.

\*\*Two stool specimens collected at least 24 hours apart within 14 days of onset of paralysis.

## Poliomyelitis Eradication — Continued

**FIGURE 1. Schedule of National Immunization Days (NIDs)\* and "mopping-up" vaccination campaigns† planned, by country — seven priority countries, Eastern Mediterranean Region, June 1999–May 2002**

Country	1999–2000												2000–2001												2001–2002												
	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	
Afghanistan																																					
Egypt																																					
Iraq																																					
Pakistan																																					
Somalia																																					
Sudan																																					
Yemen																																					

■ NIDs ■ Mopping-Up Campaigns

\* Mass campaigns over a short period (days to weeks) in which two doses of oral poliovirus vaccine are administered to all children in the target age group (usually aged <5 years) regardless of previous vaccination history, with an interval of 4–6 weeks between doses.

† Includes house-to-house vaccination in border areas and for other high-risk population groups.



*Poliomyelitis Eradication — Continued***TABLE 1. Number of reported cases of acute flaccid paralysis (AFP) and confirmed poliomyelitis\* and key surveillance indicators, by country — Eastern Mediterranean Region, 1998–October 1999**

Country	1998				1999			
	No. AFP cases	No. confirmed cases	Nonpolio AFP rate <sup>†</sup>	% persons with AFP with two stool specimens <sup>‡</sup>	No. AFP cases	No. confirmed cases	Nonpolio AFP rate <sup>†</sup>	% persons with AFP with two stool specimens
Afghanistan	121	59	0.66	50	169	75	1.29	55
Bahrain	4	0	2.00	50	3	0	2.37	100
Cyprus	5	0	3.10	100	1	0	0.80	100
Djibouti	0	0	0.00		0	0	0.00	
Egypt	295	35	1.21	82	229	7	1.32	76
Iran	348	4	1.43	76	196	3	1.08	72
Iraq	155	37	1.19	72	160	38	1.59	78
Jordan	33	0	1.80	76	21	0	1.45	81
Kuwait	6	0	1.15	83	4	0	1.00	100
Lebanon	11	0	1.26	0	12	0	1.66	8
Libya	18	0	1.00	50	19	0	1.38	63
Morocco	81	0	0.85	33	54	0	0.74	46
Oman	8	0	1.00	88	16	0	2.45	88
Pakistan	751	339	0.64	60	813	270	1.19	72
Palestine	14	0	1.21	100	6	0	0.64	83
Qatar	2	0	2.18	0	2	0	1.80	
Saudi Arabia	84	1	1.08	88	66	0	1.11	79
Somalia	32	12	0.69	28	32	11	0.93	31
Sudan	88	50	0.31	33	80	31	0.47	34
Syria	85	0	1.32	98	63	0	1.16	84
Tunisia	37	0	1.19	81	32	0	1.33	94
United Arab Emirates	4	0	0.60	0	5	0	1.01	40
Yemen	27	16	0.13	33	90	11	1.19	58
<b>Total</b>	<b>2209</b>	<b>553</b>	<b>0.86</b>	<b>64</b>	<b>2073</b>	<b>446</b>	<b>1.21</b>	<b>68</b>

\* A confirmed case of polio is defined as AFP and at least one of the following: 1) laboratory-confirmed wild poliovirus infection, 2) inadequate stool specimens and residual paralysis at 60 days, 3) death, or 4) no follow-up investigation at 60 days.

<sup>†</sup> Number of AFP cases per 100,000 population aged <15 years. Minimum expected rate is one case of nonpolio AFP per 100,000 per year.

<sup>‡</sup> Two stool specimens collected at least 24 hours apart within 14 days of paralysis onset from ≥80% of AFP cases.

<sup>§</sup> Annualized nonpolio AFP rate.

Syria, and Tunisia) achieved the WHO-recommended target of two adequate stool specimens collected from at least 80% of persons with AFP. An additional five countries (Bahrain, Egypt, Iran, Iraq, and Jordan) collected stool specimens from 71% to 79% of persons with AFP reported during the same period, and six countries (Lebanon, Morocco, Qatar, Somalia, Sudan, and United Arab Emirates) collected adequate specimens from <50% of persons with AFP. Despite high national AFP surveillance performance indicators during 1997 and 1998 in Egypt and Iraq, circulation of wild poliovirus type 3 in Egypt and type 1 in Iraq continued undetected for >2 years.



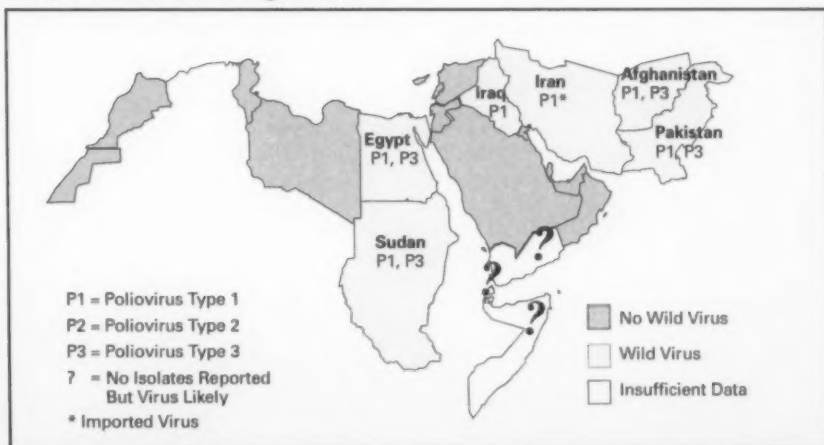
*Poliomyelitis Eradication — Continued***EMR Laboratory Network**

The EMR laboratory network comprises 12 laboratories (eight national and four regional reference laboratories). During 1998, all network laboratories except those in Iraq and Sudan were accredited by WHO. On the basis of their improved performance, the laboratories in Iraq and Sudan received provisional accreditation in 1999. As of October 1999, 3445 stool specimens from 1800 (99%) of 1824 persons with AFP reported from 22 EMR countries underwent laboratory investigation in a WHO network laboratory. Laboratory results were reported on time (within 28 days of receipt of specimen) for 80% of stool specimens. The regional average nonpolio enterovirus isolation rate (an indicator of the adequacy of laboratory technique and specimen handling) was 9%; 93% of the specimens were received in the laboratory in good condition. Genetic sequence analyses are performed routinely on all wild poliovirus isolates in the region. The information has provided evidence of progress toward eradication through identifying virus reservoirs, establishing virus transmission links and cross-border importations, and detecting laboratory contamination (5).

**Incidence of Polio**

From 1988 through October 1999, the number of confirmed polio cases reported in the EMR decreased 81%, from 2342 to 446. Of 23 EMR countries, 15 reported zero cases during 1999. Since 1996, five countries (Afghanistan, Egypt, Iraq, Pakistan, and Sudan) have reported cases with indigenous strains of wild poliovirus. The last virologically confirmed case of polio in Egypt had onset in March 1999. Wild poliovirus has not been isolated in Somalia through a functioning surveillance system in the north or from AFP cases reported in Yemen during 1998 and 1999. During 1998 and 1999, Pakistan continued to report the largest number of cases and contributed nearly 60% of the total number of cases in the region. Wild poliovirus type 2 has not been isolated in EMR since 1997 (Figure 2).

**FIGURE 2. Isolation of poliovirus serotypes from acute flaccid paralysis cases — Eastern Mediterranean Region, 1999**



*Poliomyelitis Eradication — Continued*

Countries with high-quality AFP surveillance that have been polio-free for several years have begun to prepare documentation for review by the Regional Commission for Certification of Polio Eradication. In late 1999, the commission will review documentation from five EMR countries and from an additional 10 countries before the end of 2000.

*Reported by: Regional Office for the Eastern Mediterranean Region, Alexandria, Egypt. Vaccine and Biologicals Dept, World Health Organization, Geneva, Switzerland. Respiratory and Enteric Viruses Br, Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases; Vaccine Preventable Disease Eradication Div, National Immunization Program, CDC.*

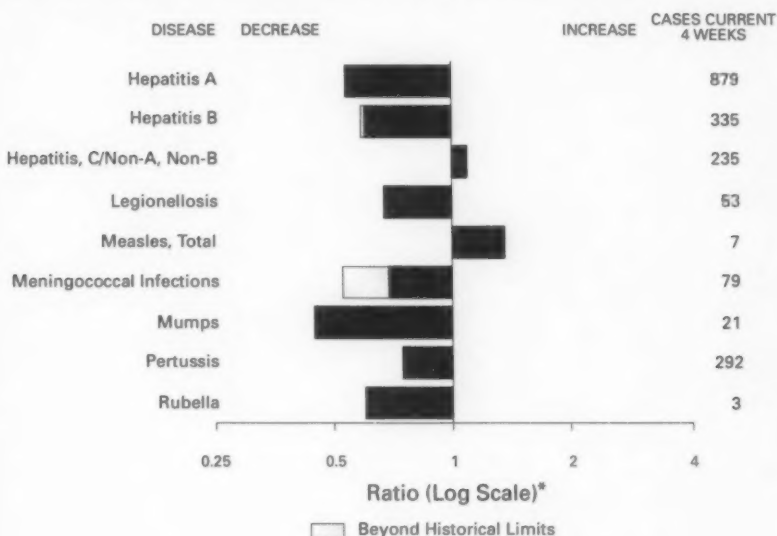
**Editorial Note:** Member countries of EMR have made remarkable progress toward polio eradication since 1988. Most EMR countries are now polio-free in the presence of high-quality AFP surveillance, and the intensity of virus transmission is decreasing rapidly in countries where polio is endemic. Supplementary vaccination campaigns and AFP surveillance have been implemented in all EMR countries, including areas in conflict, in Afghanistan, Somalia, and Sudan (1,6). Progress made in those countries faced with armed conflict, political instability or economic sanctions, poor health infrastructure, and population displacement is encouraging.

EMR countries have gained sufficient experience in the most challenging circumstances to implement effectively accelerated polio eradication activities. Accelerated activities to stop virus transmission by the end of 2000 have begun in seven countries of EMR where polio is known or suspected to be endemic. Efforts to improve the quality of vaccination campaigns include advanced preparations, better local level planning, extensive supervision, house-to-house vaccination, community mobilization, and heightened political commitment. Additional NIDs, SNIDs, or "mopping-up" will be conducted during the next 18–24 months in these countries. AFP surveillance is being strengthened through regular active surveillance in major health facilities, designation and training of responsible staff, and strong central coordination, supervision, monitoring, and evaluation.

Rapid reduction in virus transmission during summer 1999 in Egypt and parts of Pakistan where additional intensified campaigns were conducted in spring 1999 has provided strong preliminary evidence of the impact of these accelerated vaccination activities. During 1999, training of designated staff followed by implementation of regular active surveillance at lower administrative levels in selected districts and governorates of Pakistan and Yemen, have led to rapid improvements in surveillance performance in these countries. Undetected circulation of wild poliovirus type 3 in Egypt for >2 years highlight the importance of high quality surveillance at subnational levels. Undetected circulation of wild poliovirus type 1 in Iraq indicates the need for ensuring that all components of an AFP surveillance system, particularly stool specimen collection, storage, transport, and testing in a WHO-accredited laboratory, are functioning adequately. A greater emphasis has been placed on improving surveillance performance at subnational levels in these two countries.

Successfully implementing accelerated activities will require strong and more effective political commitment from the highest level within the countries<sup>††</sup>. Further consolidation is needed among WHO, United Nations Children's Fund, other United Nations agencies, and nongovernmental organizations (NGOs), particularly in areas of

<sup>††</sup>EMR polio eradication efforts are supported by its member countries, WHO, United Nations Children's Fund (UNICEF), Rotary International, CDC, the United Kingdom, Japan, Canada, Denmark, Norway, and Italy.

**FIGURE I. Selected notifiable disease reports, comparison of provisional 4-week totals ending November 20, 1999, with historical data — United States**

\* Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

**TABLE I. Summary — provisional cases of selected notifiable diseases, United States, cumulative, week ending November 20, 1999 (46th Week)**

	Cum. 1999		Cum. 1999
Anthrax	-	HIV infection, pediatric*	121
Brucellosis*	45	Plague	8
Cholera	3	Polio myelitis, paralytic	-
Congenital rubella syndrome	6	Psittacosis*	15
Cyclosporiasis*	49	Rabies, human	-
Diphtheria	2	Rocky Mountain spotted fever (RMSF)	476
Encephalitis: California*	54	Streptococcal disease, invasive Group A	1,838
eastern equine*	6	Streptococcal toxic-shock syndrome*	30
St. Louis*	6	Syphilis, congenital†	204
western equine*	1	Tetanus	30
Ehrlichiosis	133	Toxic-shock syndrome	101
human granulocytic (HGE)*	37	Trichinosis	8
human monocytic (HME)*	90	Typhoid fever	276
Hansen Disease*	18	Yellow fever	1
Hantavirus pulmonary syndrome*	93		
Hemolytic uremic syndrome, post-diarrheal*			

-: no reported cases

\* Not notifiable in all states.

† Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (NCID).

‡ Updated monthly from reports to the Division of HIV/AIDS Prevention—Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), last update October 24, 1999.

§ Updated from reports to the Division of STD Prevention, NCHSTP.

**TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending November 20, 1999, and November 21, 1998 (46th Week)**

Reporting Area	AIDS		Chlamydia		Cryptosporidiosis		Escherichia coli O157:H7*			
	Cum. 1999†	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	NETSS		PHLIS	
							Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998
UNITED STATES	37,420	40,205	517,388	524,226	2,138	3,434	3,052	2,687	2,098	2,046
NEW ENGLAND	1,904	1,602	17,713	17,832	134	143	293	306	323	260
Maine	68	26	904	950	27	29	36	35	-	-
N.H.	38	25	845	864	17	15	31	43	31	44
Vt.	15	18	417	375	35	26	32	19	20	17
Mass.	1,231	843	8,166	7,417	49	66	166	139	175	148
R.I.	90	118	2,075	2,021	6	7	28	12	26	1
Conn.	462	572	5,306	6,205	-	-	U	58	71	50
MID. ATLANTIC	9,663	10,597	53,094	54,848	396	529	286	277	78	84
Upstate N.Y.	1,146	1,311	N	N	157	314	226	199	-	-
N.Y. City	5,100	5,853	21,963	23,302	116	191	10	12	17	12
N.J.	1,741	1,930	9,152	10,499	36	24	50	66	32	51
Pa.	1,676	1,503	21,979	21,047	87	N	N	N	29	21
E.N. CENTRAL	2,519	2,806	71,473	88,033	536	689	654	415	454	344
Ohio	403	568	21,000	24,027	60	70	228	111	181	69
Ind.	285	447	9,913	9,864	38	52	99	93	59	49
Ill.	1,201	1,038	22,015	23,799	67	81	216	108	81	76
Mich.	504	577	18,545	17,936	45	37	111	103	73	64
Wis.	126	176	U	12,407	326	449	N	N	60	86
W.N. CENTRAL	846	769	31,605	31,228	200	313	573	450	386	384
Minn.	161	147	6,045	6,282	77	130	188	168	168	201
Iowa	72	62	4,214	4,058	54	63	112	91	73	58
Mo.	408	365	12,030	11,048	29	25	60	47	58	61
N. Dak.	6	5	707	935	18	30	16	11	14	15
S. Dak.	13	15	1,338	1,381	7	24	44	32	59	36
Nebr.	61	60	3,045	2,596	14	35	97	48	-	-
Kans.	125	115	4,226	4,928	1	6	21	33	14	13
S. ATLANTIC	10,275	10,643	112,358	101,355	345	323	312	234	155	165
Del.	147	122	2,400	2,291	-	3	6	-	3	2
Md.	1,242	1,479	10,333	6,560	16	18	41	40	4	14
D.C.	496	750	N	N	8	25	1	1	U	U
Va.	689	882	12,624	12,023	26	20	69	N	55	51
W. Va.	61	70	1,204	2,160	3	2	11	12	8	10
N.C.	688	753	19,221	19,847	23	N	66	54	51	47
S.C.	847	684	10,513	14,761	-	-	20	15	14	12
Ge.	1,466	1,063	29,738	21,598	123	115	32	73	-	-
Fla.	4,639	4,840	26,325	22,115	144	140	66	39	20	29
E.S. CENTRAL	1,666	1,860	39,822	36,270	27	24	117	114	58	64
Ky.	236	262	6,533	5,705	6	10	46	34	-	-
Tenn.	643	620	12,221	12,097	6	8	43	51	38	40
Ala.	423	455	11,157	9,060	11	N	23	23	16	20
Miss.	364	343	9,811	9,408	4	6	5	6	4	4
W.S. CENTRAL	3,822	5,088	72,032	79,738	82	899	125	97	118	99
Ark.	158	189	5,307	5,336	2	6	15	11	8	10
La.	742	835	11,220	13,470	22	15	9	5	14	7
Okla.	113	274	7,269	8,518	10	N	28	23	24	8
Tex.	2,809	3,790	48,236	54,214	48	878	73	58	72	74
MOUNTAIN	1,469	1,411	27,329	29,196	90	120	306	351	195	243
Mont.	11	28	1,393	1,204	10	10	24	15	-	5
Idaho	21	28	1,517	1,809	8	17	63	38	20	25
Wyo.	10	3	670	625	1	2	15	53	14	55
Colo.	271	296	5,180	7,026	12	18	108	85	87	67
N. Mex.	78	188	3,308	3,280	39	46	12	19	5	20
Ariz.	745	550	10,769	10,325	12	18	30	43	20	26
Utah	129	114	1,910	1,927	N	N	38	74	47	21
Nev.	204	214	2,582	3,000	8	9	16	24	2	24
PACIFIC	5,256	5,609	91,962	85,726	328	394	386	443	331	403
Wash.	305	369	10,702	9,740	N	N	147	102	158	127
Oreg.	185	146	5,204	5,034	88	65	73	102	68	98
Calif.	4,673	4,918	71,906	67,000	240	326	155	232	94	162
Alaska	13	17	1,611	1,670	-	-	1	7	1	-
Hawaii	80	159	2,539	2,262	-	3	10	-	10	16
Guam	5	1	302	377	-	-	N	N	U	U
P.R.	1,094	1,585	U	U	-	N	5	5	U	U
V.I.	36	31	U	U	U	U	U	U	U	U
Amer. Samoa	-	-	U	U	U	U	U	U	U	U
C.N.M.I.	-	-	U	U	U	U	U	U	U	U

N: Not notifiable U: Unavailable -: no reported cases C.N.M.I.: Commonwealth of Northern Mariana Islands

\*Individual cases may be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

†Updated monthly from reports to the Division of HIV/AIDS Prevention—Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention, last update October 24, 1999.

TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending November 20, 1999, and November 21, 1998 (46th Week)

Reporting Area	Gonorrhea		Hepatitis C/NA,NS		Legionellosis		Lyme Disease	
	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998
UNITED STATES	284,215	312,612	2,911	2,981	810	1,168	11,395	14,560
NEW ENGLAND	5,397	5,333	12	57	73	79	3,124	4,427
Maine	71	61	2	-	3	1	41	76
N.H.	94	82	-	-	8	7	21	42
Vt.	42	34	6	5	14	7	33	11
Mass.	2,259	2,005	1	49	28	32	890	678
R.I.	522	359	3	3	9	19	464	598
Conn.	2,409	2,792	-	-	11	13	1,685	3,022
MID. ATLANTIC	34,035	34,089	118	197	175	296	6,578	8,085
Upstate N.Y.	6,031	6,480	83	100	57	104	3,512	3,767
N.Y. City	11,782	10,511	-	-	9	34	32	225
N.J.	5,508	7,107	-	U	18	15	922	1,761
Pa.	10,734	9,991	35	97	91	143	2,112	2,332
E.N. CENTRAL	47,774	60,874	1,379	619	220	385	118	739
Ohio	12,752	15,731	3	8	65	121	70	44
Ind.	5,386	5,820	1	5	38	70	19	36
Ill.	16,618	19,732	41	38	22	50	12	14
Mich.	13,018	13,946	743	430	59	79	1	12
Wis.	U	5,646	591	138	36	65	16	633
W.N. CENTRAL	13,657	15,585	286	39	43	60	246	203
Minn.	2,332	2,415	10	10	9	6	179	152
Iowa	1,053	1,362	-	8	11	9	19	26
Mo.	6,930	8,115	264	13	14	16	25	11
N. Dak.	71	75	1	-	2	-	1	-
S. Dak.	160	203	-	-	3	3	-	-
Nebr.	1,285	1,099	5	5	4	18	10	3
Kans.	1,826	2,316	6	3	-	8	12	11
S. ATLANTIC	84,640	84,121	188	104	127	133	1,047	826
Del.	1,476	1,350	1	-	13	12	51	65
Md.	8,853	9,561	39	18	29	34	743	583
D.C.	3,186	3,829	1	-	3	7	4	4
Va.	8,527	8,335	10	11	30	19	112	65
W. Va.	363	784	17	6	N	N	16	12
N.C.	17,041	17,088	34	21	14	14	67	54
S.C.	6,181	9,335	22	9	11	10	7	7
Ga.	20,377	17,806	1	9	1	8	-	5
Fla.	18,656	17,033	63	30	26	29	47	31
E.S. CENTRAL	31,788	35,050	226	260	37	60	71	101
Ky.	3,005	3,315	21	20	19	26	9	25
Tenn.	9,901	10,583	79	153	14	21	30	41
Ala.	9,925	11,591	1	4	4	6	19	21
Miss.	8,957	9,561	125	83	-	7	13	14
W.S. CENTRAL	40,315	49,144	313	506	23	30	43	21
Ark.	2,824	3,525	18	21	-	1	4	6
La.	8,880	11,564	102	101	2	4	-	4
Okl.	3,585	4,718	14	14	3	12	4	2
Tex.	25,026	29,337	179	370	18	13	35	9
MOUNTAIN	8,141	8,117	132	355	42	67	18	17
Mont.	48	43	5	7	-	2	-	-
Idaho	77	152	7	86	2	2	5	5
Wyo.	28	29	37	89	-	1	3	1
Colo.	2,159	1,854	21	31	11	16	-	-
N. Mex.	684	795	8	91	1	1	1	4
Ariz.	3,888	3,749	40	11	6	17	2	1
Utah	200	204	6	21	16	21	5	-
Nev.	1,077	1,291	8	19	6	6	2	6
PACIFIC	18,468	20,499	257	844	70	58	150	141
Wash.	1,874	1,742	18	22	13	12	10	7
Oreg.	759	732	17	18	N	N	12	20
Calif.	15,210	17,288	222	750	56	44	128	113
Alaska	260	280	-	-	1	1	-	1
Hawaii	365	457	-	54	-	1	N	N
Guam	39	63	1	1	-	2	-	1
P.R.	297	340	-	-	-	-	N	N
V.I.	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	U	U	U	U

N: Not notifiable U: Unavailable -: no reported cases

**TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending November 20, 1999, and November 21, 1998 (46th Week)**

Reporting Area	Malaria		Rabies, Animal		Salmonellosis*			
	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	NETSS		PHLIS	
	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998
UNITED STATES	1,170	1,322	5,364	6,621	33,317	37,950	25,669	30,850
NEW ENGLAND	59	64	803	1,324	1,504	2,298	1,867	2,112
Maine	3	5	160	215	124	153	95	61
N.H.	2	5	50	74	124	174	131	208
Vt.	4	1	86	61	87	129	76	103
Mass.	22	25	194	468	1,047	1,211	1,025	1,245
R.I.	4	10	89	88	122	132	147	34
Conn.	24	18	224	418	U	499	393	461
MID. ATLANTIC	280	386	1,033	1,449	4,080	6,035	3,545	5,367
Upstate N.Y.	68	85	743	1,007	1,224	1,476	1,127	1,271
N.Y. City	126	217	U	U	1,219	1,743	927	1,369
N.J.	48	53	160	202	665	1,338	535	1,280
Pa.	38	31	130	240	972	1,478	956	1,467
E.N. CENTRAL	135	139	143	120	4,808	5,708	3,102	4,383
Ohio	18	15	34	55	1,189	1,395	953	1,042
Ind.	18	10	13	11	479	597	376	481
Ill.	54	56	10	N	1,485	1,745	399	1,416
Mich.	37	46	83	35	858	1,054	856	975
Wis.	8	12	3	19	797	917	518	469
W.N. CENTRAL	72	86	645	652	2,026	2,102	2,080	2,144
Minn.	41	52	101	107	574	522	625	611
Iowa	13	7	147	139	242	344	197	269
Mo.	14	14	14	38	678	566	817	775
N. Dak.	-	2	130	129	43	59	49	67
S. Dak.	-	-	163	149	89	108	108	118
Nebr.	-	1	3	7	181	170	78	44
Kans.	4	10	87	83	219	333	206	260
S. ATLANTIC	313	283	1,912	2,168	7,950	7,786	4,791	5,615
Del.	1	3	37	47	129	72	144	110
Md.	86	83	367	417	807	845	891	823
D.C.	17	18	-	-	67	73	U	U
Va.	67	52	523	515	1,161	1,012	905	802
W. Va.	2	2	99	70	147	143	142	147
N.C.	26	27	376	523	1,186	1,154	1,211	1,310
S.C.	17	6	132	136	639	586	454	500
Ga.	22	35	204	274	1,376	1,528	651	1,398
Fla.	75	57	174	186	2,438	2,373	393	525
E.S. CENTRAL	21	32	238	253	1,719	2,119	938	1,450
Ky.	7	7	35	30	374	333	-	124
Tenn.	6	16	82	129	317	544	487	643
Ala.	7	6	120	92	544	635	374	533
Miss.	1	3	1	2	484	607	77	150
W.S. CENTRAL	16	34	89	28	3,549	4,341	2,880	2,939
Ark.	3	1	14	28	597	567	120	340
La.	10	14	-	-	334	653	472	741
Okla.	2	3	75	N	386	3	291	211
Tex.	1	16	-	-	2,232	2,676	1,997	1,647
MOUNTAIN	41	60	178	242	2,767	2,297	2,254	1,839
Mont.	4	1	55	51	70	74	1	43
Idaho	3	-	N	112	-	113	81	90
Wyo.	1	-	42	63	65	58	49	55
Colo.	16	18	1	42	649	492	657	463
N. Mex.	2	12	9	6	354	272	217	240
Ariz.	8	8	58	48	858	742	709	623
Utah	4	1	8	26	486	326	487	122
Nev.	3	12	5	6	173	219	53	203
PACIFIC	233	238	323	385	4,914	5,264	4,212	5,001
Wash.	25	17	-	-	593	462	777	614
Oreg.	19	15	2	7	389	278	455	301
Calif.	177	199	314	355	3,572	4,211	2,707	3,778
Alaska	1	2	7	23	51	53	15	32
Hawaii	11	5	-	-	309	260	258	276
Guam	-	-	-	-	24	36	U	U
P.R.	-	2	-	47	255	725	U	U
V.I.	U	U	64	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	U	U	U	U

N: Not notifiable U: Unavailable -: no reported cases

\*Individual cases may be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

**TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending November 20, 1999, and November 21, 1998 (46th Week)**

Reporting Area	Shigellosis*				Syphilis (Primary & Secondary)		Tuberculosis	
	NETSS		PHLIS		Cum. 1999	Cum. 1998	Cum. 1999†	Cum. 1998†
	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998				
UNITED STATES	14,049	19,564	6,500	11,104	5,782	6,358	12,183	14,937
NEW ENGLAND	714	388	710	340	51	69	367	390
Maine	5	12	-	-	1	1	16	11
N.H.	16	16	14	19	1	2	10	-
Vt.	6	6	4	2	3	4	2	4
Mass.	664	253	621	244	32	40	209	223
R.I.	23	34	18	13	2	1	39	49
Conn.	U	67	53	62	13	21	91	103
MID. ATLANTIC	839	2,188	415	1,611	222	287	2,262	2,706
Upstate N.Y.	254	570	62	201	25	35	280	338
N.Y. City	258	663	82	568	79	72	1,220	1,280
N.J.	195	619	121	593	48	91	451	546
Pa.	132	336	150	249	70	89	311	542
E.N. CENTRAL	2,533	2,853	1,159	1,426	1,240	916	1,136	1,463
Ohio	379	459	124	129	84	128	214	214
Ind.	293	150	94	39	613	184	83	141
Ill.	993	1,456	592	1,187	335	370	508	685
Mich.	388	242	280	4	208	176	246	328
Wis.	480	346	69	67	U	58	85	95
W.N. CENTRAL	1,030	965	668	576	108	122	427	427
Minn.	222	287	212	321	9	9	178	131
Iowa	57	63	48	44	9	2	40	43
Mo.	633	151	327	113	72	91	151	155
N. Dak.	3	9	2	3	-	-	6	8
S. Dak.	13	31	6	22	8	1	17	17
Nebr.	65	358	35	19	8	6	16	26
Kans.	37	66	38	54	10	13	19	47
S. ATLANTIC	2,201	3,878	406	1,185	1,803	2,356	2,487	2,772
Del.	12	35	8	33	3	20	12	33
Md.	147	193	50	64	307	617	241	270
D.C.	50	30	U	U	59	84	45	97
Va.	122	183	51	81	142	137	247	250
W. Va.	8	11	5	7	2	3	35	38
N.C.	189	299	80	169	400	664	348	398
S.C.	120	167	60	88	235	305	218	250
Ga.	212	1,005	37	233	368	263	532	459
Fla.	1,341	1,955	115	510	282	263	809	977
E.S. CENTRAL	954	1,239	456	979	1,011	1,091	768	1,041
Ky.	225	126	-	45	94	94	166	148
Tenn.	508	627	399	716	561	513	272	364
Ala.	108	433	47	211	196	257	274	330
Miss.	113	53	10	7	160	227	56	199
W.S. CENTRAL	2,429	3,985	1,849	1,279	837	960	1,265	2,208
Ark.	73	198	23	60	76	104	147	136
La.	118	315	111	272	208	384	U	256
Okl.	448	491	149	152	164	81	120	149
Tex.	1,790	2,981	1,566	795	389	391	998	1,667
MOUNTAIN	1,038	1,176	636	677	205	217	384	493
Mont.	9	8	-	3	1	-	13	18
Idaho	25	19	9	14	2	14	10	10
Wyo.	3	3	1	1	-	1	3	4
Colo.	180	207	137	152	2	10	U	60
N. Mex.	128	276	62	159	11	22	54	62
Ariz.	551	563	360	301	182	163	184	189
Utah	61	39	61	28	2	4	38	47
Nev.	81	61	6	19	6	15	78	103
PACIFIC	2,311	3,092	201	3,031	305	340	3,087	3,437
Wash.	102	201	98	171	64	27	156	231
Oreg.	80	176	76	146	9	5	90	123
Calif.	2,097	2,660	-	2,660	228	304	2,630	2,981
Alaska	3	9	2	5	1	1	51	47
Hawaii	29	46	25	49	3	3	160	155
Guam	8	34	U	U	1	1	11	82
PR.	62	57	U	U	143	162	41	140
V.I.	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	U	U	U	U

N: Not notifiable U: Unavailable -: no reported cases

\*Individual cases may be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

†Cumulative reports of provisional tuberculosis cases for 1999 are unavailable ("U") for some areas using the Tuberculosis Information System (TIMS).



**TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending November 20, 1999, and November 21, 1998 (46th Week)**

Reporting Area	H. influenzae, invasive		Hepatitis (Viral), by type				Measles (Rubella)					
			A		B		Indigenous	Imported*	Total			
	Cum. 1999*	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	1999	Cum. 1999	1999	Cum. 1999	Cum. 1998	
UNITED STATES	1,000	956	15,088	19,930	5,592	8,530	-	98	-	24	82	88
NEW ENGLAND	88	64	263	261	93	196	-	6	-	5	11	3
Maine	7	3	12	19	1	4	-	-	-	-	-	-
N.H.	20	10	18	14	15	18	-	-	-	1	1	-
Vt.	5	8	19	15	3	8	-	-	-	-	-	1
Mass.	34	37	90	114	38	71	-	5	-	3	8	2
R.I.	5	5	21	16	34	66	-	-	-	-	-	-
Conn.	17	1	103	83	2	29	-	1	-	1	2	-
MID. ATLANTIC	159	156	871	1,534	538	1,104	-	-	-	2	2	14
Upstate N.Y.	76	55	244	321	166	221	-	-	-	2	2	2
N.Y. City	37	40	270	538	175	386	-	-	-	-	-	-
N.J.	45	51	112	319	41	186	U	-	U	-	-	8
Pa.	1	10	245	356	156	311	U	-	U	-	-	4
E.N. CENTRAL	152	164	2,523	3,207	571	1,280	-	1	-	2	3	15
Ohio	51	46	599	278	84	72	-	-	-	-	-	1
Ind.	22	40	100	144	36	103	-	1	-	1	2	3
Ill.	65	59	643	720	1	214	-	-	-	-	-	-
Mich.	13	12	1,123	1,888	431	413	U	-	U	1	1	10
Wis.	1	7	58	177	19	478	U	-	U	-	-	1
W.N. CENTRAL	83	84	843	1,244	332	368	-	1	-	-	1	-
Minn.	43	65	93	118	50	45	-	1	-	-	1	-
Iowa	9	2	127	392	35	52	-	-	-	-	-	-
Mo.	22	10	521	579	203	220	-	-	-	-	-	-
N. Dak.	1	-	3	3	2	4	U	-	U	-	-	-
S. Dak.	1	-	9	31	1	2	U	-	U	-	-	-
Nebr.	3	1	50	25	14	20	-	-	-	-	-	-
Kans.	4	6	40	96	27	25	U	-	U	-	-	-
S. ATLANTIC	216	169	1,816	1,808	1,094	927	-	14	-	6	20	8
Del.	-	-	2	3	1	3	U	-	U	-	-	1
Md.	55	50	319	371	151	124	-	-	-	-	-	1
D.C.	4	-	54	56	23	11	U	-	-	-	-	-
Va.	18	16	164	190	86	90	-	14	-	4	18	2
W. Va.	6	6	34	7	22	8	U	-	U	-	-	-
N.C.	31	23	145	115	208	212	U	-	U	-	-	-
S.C.	5	3	44	37	65	41	-	-	-	-	-	-
Ga.	55	43	439	580	159	127	-	-	-	-	-	2
Fla.	42	28	615	449	379	311	U	-	U	2	2	2
E.S. CENTRAL	51	56	353	374	366	460	-	2	-	-	2	2
Ky.	6	7	61	30	42	46	-	2	-	-	2	-
Tenn.	27	32	142	205	165	252	-	-	-	-	-	-
Ala.	15	14	54	72	77	68	-	-	-	-	-	1
Miss.	3	3	96	67	82	94	-	-	-	-	-	-
W.S. CENTRAL	45	51	3,579	3,663	779	1,878	-	9	-	4	13	-
Ark.	2	-	58	78	64	99	-	4	-	-	4	-
La.	7	21	73	98	77	152	U	-	U	-	-	-
Okla.	32	27	412	539	110	92	-	-	-	-	-	-
Tex.	4	3	3,036	2,948	528	1,535	-	5	-	4	9	-
MOUNTAIN	101	106	1,160	2,864	512	733	-	3	-	-	3	4
Mont.	3	-	17	91	17	5	U	-	U	-	-	-
Idaho	1	1	40	226	27	40	-	-	-	-	-	-
Wyo.	1	1	7	36	13	9	-	-	-	-	-	-
Colo.	11	21	201	301	87	98	-	-	-	-	-	-
N. Mex.	18	6	47	137	156	284	-	-	-	-	-	-
Ariz.	54	54	670	1,692	132	160	U	1	U	-	1	4
Utah	10	4	56	176	34	65	-	2	-	-	2	-
Nev.	3	19	122	206	46	72	U	-	U	-	-	-
PACIFIC	105	106	3,680	4,975	1,307	1,584	-	22	-	5	27	42
Wash.	6	9	299	906	63	100	-	-	-	-	-	1
Oreg.	39	38	221	405	81	177	U	9	U	-	9	-
Calif.	46	47	3,135	3,595	1,136	1,279	-	13	-	4	17	8
Alaska	6	4	10	17	14	13	U	-	U	-	-	33
Hawaii	8	8	15	52	13	15	-	-	-	1	1	-
Guam	-	-	2	1	2	2	U	1	U	-	1	-
P.R.	1	1	112	67	102	225	U	-	U	-	-	-
V.I.	U	U	U	U	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	U	U	U	U	U	U	U	U

N: Notifiable U: Unavailable - : no reported cases

\*For imported measles, cases include only those resulting from importation from other countries.

†Of 192 cases among children aged <5 years, serotype was reported for 98 and of those, 27 were type b.

TABLE III. (Cont'd.) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending November 20, 1999, and November 21, 1998 (46th Week)

Reporting Area	Meningococcal Disease		Mumps		Pertussis		Rubella	
	Cum. 1999	Cum. 1998	1999	Cum. 1999	1999	Cum. 1999	1999	Cum. 1999
UNITED STATES	2,073	2,348	3	308	89	5,031	2	230
NEW ENGLAND	102	107	-	8	7	606	935	7
Maine	5	6	-	-	-	-	5	-
N.H.	13	11	-	1	-	78	109	-
Vt.	5	5	-	1	4	67	71	-
Mass.	58	52	-	4	3	400	698	7
R.I.	6	8	-	2	1	33	9	-
Conn.	15	25	-	-	2	28	43	-
MID. ATLANTIC	195	255	2	32	185	840	574	2
Upstate N.Y.	62	72	2	12	7	669	300	2
N.Y. City	49	31	-	3	155	10	41	-
N.J.	45	55	U	-	6	12	25	U
Pa.	39	97	U	17	17	149	208	U
E. N. CENTRAL	355	358	-	39	78	429	771	-
Ohio	124	127	-	17	27	188	261	-
Ind.	61	66	-	7	3	71	168	-
Ill.	96	92	-	11	10	68	115	-
Mich.	42	42	U	7	29	54	66	U
Wis.	32	31	U	-	3	48	170	U
W.N. CENTRAL	226	202	-	13	32	1	366	538
Minn.	49	31	-	1	13	-	188	306
Iowa	41	39	-	7	11	-	54	68
Mo.	91	71	-	1	3	1	61	35
N. Dak.	4	5	U	1	2	U	18	4
S. Dak.	11	7	U	-	-	U	6	U
Nebr.	12	16	-	-	-	-	4	16
Kans.	18	33	U	3	3	U	35	101
S. ATLANTIC	373	403	-	49	47	25	392	307
Del.	8	2	U	-	-	U	5	U
Md.	51	30	-	7	-	3	106	61
D.C.	1	1	U	2	-	U	-	1
Va.	50	40	-	10	8	20	50	36
W. Va.	7	17	U	-	-	U	3	2
N.C.	41	55	U	8	11	U	86	98
S.C.	43	53	-	4	7	-	17	27
Ga.	59	91	-	4	1	2	40	27
Fla.	113	114	U	14	20	U	85	50
E.S. CENTRAL	127	181	-	13	15	-	72	131
Ky.	30	34	-	-	-	-	21	64
Tenn.	43	63	-	-	1	-	27	35
Ala.	32	49	-	10	8	-	21	26
Miss.	22	35	-	3	6	-	3	6
W.S. CENTRAL	167	274	-	33	56	-	157	348
Ark.	32	28	-	-	12	-	18	81
La.	34	53	U	3	7	U	3	9
Okla.	27	39	-	1	-	-	12	32
Tex.	74	154	-	29	37	-	124	226
MOUNTAIN	128	133	1	28	37	23	673	1,065
Mont.	4	4	U	-	-	U	2	12
Idaho	10	11	1	3	5	2	139	216
Wyo.	4	6	-	1	-	-	2	6
Colo.	32	26	-	5	6	5	190	274
N. Mex.	14	25	N	N	N	16	175	94
Ariz.	42	39	U	8	6	U	102	191
Utah	15	13	-	7	5	-	56	229
Nev.	7	9	U	5	14	U	7	41
PACIFIC	400	435	-	93	134	6	1,496	1,327
Wash.	61	59	-	2	10	4	598	305
Oreg.	71	76	N	N	N	U	55	85
Calif.	255	292	-	77	98	2	805	903
Alaska	6	3	U	2	2	U	5	14
Hawaii	7	5	-	12	24	-	33	20
Guam	2	2	U	1	5	U	1	1
P.R.	5	10	U	-	3	U	16	9
V.I.	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	U	U	U	U

N: Not notifiable U: Unavailable - : no reported cases

TABLE IV. Deaths in 122 U.S. cities,\* week ending  
November 20, 1999 (46th Week)

Reporting Area	All Causes, By Age (Years)						P&I <sup>†</sup> Total	Reporting Area	All Causes, By Age (Years)						P&I <sup>†</sup> Total
	All Ages	>65	45-64	25-44	1-24	<1			All Ages	>65	45-64	25-44	1-24	<1	
NEW ENGLAND	386	267	71	20	4	4	37	S. ATLANTIC	979	652	185	97	27	18	49
Boston, Mass.	U	U	U	U	U	U	U	Atlanta, Ga.	U	U	U	U	U	U	U
Bridgeport, Conn.	44	36	7	-	1	-	4	Baltimore, Md.	147	81	36	23	6	1	13
Cambridge, Mass.	17	13	4	-	-	-	3	Charlotte, N.C.	110	74	24	7	3	2	8
Fall River, Mass.	17	11	4	2	-	-	-	Jacksonville, Fla.	139	99	22	13	2	3	8
Hartford, Conn.	59	41	11	4	1	2	2	Miami, Fla.	U	U	U	U	U	U	U
Lowell, Mass.	20	15	3	2	-	-	2	Norfolk, Va.	47	35	4	5	-	3	2
Lynn, Mass.	15	11	4	-	-	-	6	Richmond, Va.	63	39	14	7	2	1	4
New Bedford, Mass.	25	22	2	1	-	-	2	Savannah, Ga.	43	33	7	3	-	-	1
New Haven, Conn.	54	36	11	5	1	1	4	St. Petersburg, Fla.	U	U	U	U	U	U	U
Providence, R.I.	61	45	12	2	1	1	5	Tampa, Fla.	225	161	39	17	4	4	7
Springfield, Mass.	5	2	2	1	-	-	2	Washington, D.C.	194	121	37	22	10	4	6
Waterbury, Conn.	26	19	6	2	-	-	2	Wilmington, Del.	11	9	2	-	-	-	-
Worcester, Mass.	U	U	U	U	U	U	U	E.S. CENTRAL	900	604	190	61	17	26	80
MID. ATLANTIC	2,633	1,855	512	173	50	42	112	Birmingham, Ala.	201	133	44	15	3	4	26
Albany, N.Y.	61	47	9	3	-	-	3	Chattanooga, Tenn.	76	52	13	6	2	3	6
Allentown, Pa.	U	U	U	U	U	U	U	Knockville, Tenn.	63	41	15	5	1	1	5
Buffalo, N.Y.	81	56	14	7	4	-	1	Lexington, Ky.	65	46	13	4	1	1	4
Camden, N.J.	32	17	11	1	1	2	2	Memphis, Tenn.	222	144	46	13	7	12	18
Elizabeth, N.J.	24	20	3	1	-	-	5	Mobile, Ala.	65	50	13	2	-	-	5
Enie, Pa.	49	34	10	3	2	-	5	Montgomery, Ala.	59	40	14	4	-	1	8
Jersey City, N.J.	31	23	5	3	-	-	-	Nashville, Tenn.	149	98	32	12	3	4	8
New York City, N.Y.	1,420	995	289	95	23	17	36	N.W. CENTRAL	1,168	794	221	84	36	33	62
Newark, N.J.	48	21	15	11	1	-	6	Austin, Tex.	83	58	15	4	2	4	5
Paterson, N.J.	21	11	5	2	-	-	3	Baton Rouge, La.	67	51	10	3	3	-	3
Philadelphia, Pa.	387	272	84	24	13	4	14	Corpus Christi, Tex.	49	34	9	2	1	3	3
Pittsburgh, Pa.	83	51	16	7	-	-	9	Dallas, Tex.	205	127	43	23	10	2	4
Reading, Pa.	28	24	-	3	1	-	2	El Paso, Tex.	80	49	16	2	6	7	1
Rochester, N.Y.	153	122	22	6	3	-	20	Ft. Worth, Tex.	129	82	25	14	4	4	15
Schenectady, N.Y.	22	19	1	2	-	-	-	Houston, Tex.	U	U	U	U	U	U	U
Scranton, Pa.	40	34	6	-	-	-	4	Little Rock, Ark.	76	52	10	9	2	3	3
Syracuse, N.Y.	99	77	17	1	1	3	12	New Orleans, La.	U	U	U	U	U	U	U
Trenton, N.J.	44	32	5	4	1	2	3	San Antonio, Tex.	268	188	51	19	4	6	16
Utica, N.Y.	U	U	U	U	U	U	U	Shreveport, La.	74	46	22	2	2	2	6
Yonkers, N.Y.	U	U	U	U	U	U	U	Tulsa, Okla.	137	107	20	6	2	2	9
E.N. CENTRAL	1,972	1,345	387	136	50	52	133	MOUNTAIN	1,005	713	176	76	20	19	58
Akron, Ohio	62	44	13	3	-	2	6	Albuquerque, N.M.	109	80	16	10	2	1	11
Canton, Ohio	41	24	12	1	-	4	4	Boise, Idaho	52	38	10	3	1	-	5
Chicago, Ill.	386	232	80	30	13	29	30	Colorado Springs, Colo.	74	51	11	7	2	3	6
Cincinnati, Ohio	U	U	U	U	U	U	U	Denver, Colo.	95	73	11	7	-	4	5
Cleveland, Ohio	137	90	35	8	2	2	11	Las Vegas, Nev.	202	145	39	16	1	1	12
Columbus, Ohio	212	162	32	13	-	5	9	Ogden, Utah	U	U	U	U	U	U	U
Dayton, Ohio	127	93	20	9	3	2	5	Phoenix, Ariz.	167	106	34	16	6	5	2
Detroit, Mich.	157	87	39	23	8	-	14	Pueblo, Colo.	26	19	3	2	1	1	2
Evansville, Ind.	61	43	13	4	1	-	5	Salt Lake City, Utah	109	73	20	8	4	3	10
Fort Wayne, Ind.	78	62	12	4	-	-	8	Tucson, Ariz.	171	128	32	7	3	1	5
Gary, Ind.	U	U	U	U	U	U	U	PACIFIC	1,525	1,067	284	102	35	37	133
Grand Rapids, Mich.	46	31	11	3	-	1	3	Berkeley, Calif.	13	8	3	-	2	-	-
Indianapolis, Ind.	146	93	33	14	5	1	8	Fresno, Calif.	134	99	23	6	1	1	12
Lansing, Mich.	39	25	8	4	2	-	3	Glendale, Calif.	136	18	7	1	-	-	4
Milwaukee, Wis.	156	114	27	7	6	2	9	Honolulu, Hawaii	89	59	16	9	2	3	6
Peoria, Ill.	49	35	9	1	3	1	3	Long Beach, Calif.	63	42	11	6	3	1	13
Rockford, Ill.	46	32	7	2	5	-	4	Los Angeles, Calif.	333	235	59	22	10	7	23
South Bend, Ind.	49	36	7	3	-	3	2	Pasadena, Calif.	29	23	6	-	-	-	4
Toledo, Ohio	108	81	22	3	2	-	6	Portland, Oreg.	222	156	45	14	-	6	21
Youngstown, Ohio	72	61	7	4	-	-	3	Sacramento, Calif.	U	U	U	U	U	U	U
W.N. CENTRAL	680	495	107	41	16	21	54	San Diego, Calif.	169	114	27	16	7	5	17
Des Moines, Iowa	58	44	11	1	2	-	12	San Francisco, Calif.	U	U	U	U	U	U	U
Duluth, Minn.	40	29	7	2	1	1	1	San Jose, Calif.	114	80	22	6	1	5	5
Kansas City, Kans.	39	25	7	3	1	3	4	Santa Cruz, Calif.	30	23	5	2	-	-	10
Kansas City, Mo.	85	59	11	7	4	4	4	Seattle, Wash.	147	81	41	18	3	4	10
Lincoln, Nebr.	37	32	5	-	-	-	5	Spokane, Wash.	40	34	4	-	-	2	8
Minneapolis, Minn.	221	167	33	12	2	7	22	Tacoma, Wash.	116	95	15	2	3	1	13
Omaha, Nebr.	84	71	14	3	3	3	3	TOTAL	11,248 <sup>‡</sup>	7,812	2,133	790	255	252	718
St. Louis, Mo.	U	U	U	U	U	U	U								
St. Paul, Minn.	U	U	U	U	U	U	U								
Wichita, Kans.	106	68	19	13	3	3	3								

U: Unavailable - : no reported cases

\*Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

<sup>†</sup>Pneumonia and influenza.

<sup>‡</sup>Because of changes in reporting methods in this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

<sup>§</sup>Total includes unknown ages.

*Poliomyelitis Eradication — Continued*

the region without any recognized governments. The intensified campaigns, additional NIDs, and rapid development of surveillance require substantial additional human and financial resources that must be provided jointly by the concerned governments and partner agencies and by the global coalition of partners and local NGOs in areas without a government.

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